Reply to Office Action of May 3, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

(Currently Amended) A method for handoff of a medium rate data call in a 1. mobile communication system, comprising:

the step in which, transmitting a PSMM (Pilot Strength Measurement Message) from a mobile station to a base station including a BTS (Base station Transceiver Subsystem) to which a SCH (Supplemental Channel) is allocated when the a pilot strength of the BTS to which [[a]] the SCH is allocated is smaller than the a pilot strength of the a BTS to which the SCH is not allocated among the a plurality of BTSs communicating with the mobile station in an active set, a mobile station transmits; and

the step in which the base station performs performing a handoff of [[a]] the SCH resource to [[a]] the BTS to which the SCH is not allocated, according to the PSMM.

(Currently Amended) The method according to claim 1, wherein, in case of for 2. a medium rate data service, a FCH (Fundamental Channel) handoff procedure and a SCH handoff procedure are separately performed.

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- 3. (Currently Amended) The method according to claim [[1]] 2, wherein [[the]] a SCH handoff is performed with respect to a predetermined number of BTSs having a pilot strength strong enough to combine both FCH and SCH pilot signals by the mobile station among the BTSs in an active set communicating with the mobile station.
- 4. (Currently Amended) A method for requesting a handoff of a medium rate data call of a mobile station, comprising:

<u>Subsystem</u>) to which a SCH (<u>Supplemental Channel</u>) is allocated and the <u>a</u> pilot strength of [[a]] <u>another</u> BTS to which the SCH is not allocated among the BTSs in an active set <u>among BTSs</u> communicating with the mobile station; and

a second step of transmitting a corresponding information to a base station by means of a PSMM (Pilot Strength Measurement Message) to a base station including the another BTS, if when the pilot strength of the BTS to which the SCH is allocated is smaller than the pilot strength of the BTS to which the SCH is not allocated as the result of the measurement.

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5. (Currently Amended) A method for performing a handoff of a medium rate data call of a base station:

a first step of analyzing a PSMM (Pilot Strength Measurement Message) transmitted from a mobile station;

a second step of comparing the a pilot strength of a BTS (Base Station Transceiver Subsystem) to which a SCH (Supplemental Channel) is allocated with the a pilot strength of a BTS to which the SCH is not allocated, if the allocation of the SCH is required as the result of the analysis;

a third step of allocating [a] the SCH to the BTS to which the SCH is not allocated and the BTS to which [[a]] the SCH is allocated, if the pilot strength of the BTS to which the SCH is not allocated is larger than the pilot strength of the BTS to which the SCH is allocated as the result of the comparison, and the pilot strength of the BTS to which the SCH is allocated is [[more]] higher than T_ADD; and

a fourth step of allocating the SCH to a BTS having a largest pilot strength, if all BTSs in the active set are not allocated the SCH if the SCH is not allocated to an active BTS, when a DROP of the BTS to which the SCH is allocated is required as the result of the analysis.

6. (Currently Amended) The method according to claim 5, wherein, in the thirds step, if the pilot strength of the BTS to which [[a]] the SCH is not allocated is larger than the pilot strength of the BTS to which [[a]] the SCH is allocated, and the pilot strength of the BTS

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to which the SCH is allocated is not [[more]] <u>higher</u> than T_ADD, the allocation of the SCH to the active BTS to which the SCH is not allocated is performed and the release of the SCH resource from the BTS to which [[a]] <u>the SCH</u> is allocated is performed.

- 7. (Currently Amended) The method according to claim 5, wherein, as the result of the comparison in the second step comparing, if the pilot strength of the BTS to which [[a]] the SCH is not allocated is larger than the pilot strength of the BTS to which [[a]] the SCH is allocated, it is judged that a new pilot signal having a pilot strength larger than the pilot strength of the BTS to which [[a]] the SCH is allocated is to be added, and if the pilot strength of the BTS of which an ADD handoff is to be performed is [[more]] higher than a reference threshold, a handoff of the SCH is performed by simultaneously allocating both FCH and SCH to the BTS of which [[an]] the ADD handoff is to be performed.
- 8. (Currently Amended) The method according to claim 7, wherein the reference threshold, e.g., which is a value which is previously set by a radio environment test, is set higher than T_ADD in case of for ADD handoff, and is set higher than T_DROP in case of for DROP handoff.

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9. (Currently Amended) The method according to claim 5, wherein the number of BTSs in the [[SCH]] active set is set to less than six in order to prevent an excessive waste of radio resources.

10. (New) A handoff method, comprising:

comparing a pilot strength of a first BTS (Base Station Transceiver Subsystem) to which a SCH (Supplemental Channel) is allocated with a pilot strength of a second BTS to which a SCH is not allocated; and

performing a handoff to the second BTS when the pilot strength of the first BTS is smaller than the pilot strength of the second BTS.

- 11. (New) The method of claim 10, wherein a FCH (Fundamental Channel) handoff procedure and a SCH handoff procedure are separately performed.
- 12. (New) The method according to claim 10, wherein the SCH handoff is performed with respect to a predetermined number of BTSs having a pilot strength strong enough to combine both FCH and SCH pilot signals by the mobile station among the BTSs communicating with the mobile station.